

**Thursday, March 26, 2009**  
**SCIENCE INSTRUMENTS FOR THE MARS SCIENCE LANDER**  
**1:30 p.m. Waterway Ballroom 6**

**Chairs:** **Leslie Tamppari**  
**Noah Petro**

1:30 p.m. Gellert R. \* Campbell J. L. King P. L. Leshin L. A. Lugmair G. W. Spray J. G. Squyres S. W. Yen A. S.

[The Alpha-Particle-X-Ray-Spectrometer\(APXS\) for the Mars Science Laboratory \(MSL\) Rover Mission](#) [#2364]

The new APXS for the MSL Rover mission was successfully tested, calibrated and delivered to NASA/JPL. The data acquisition time compared to MER was decreased by about a factor of 3, allowing a full *in situ* chemical analysis within ~3 hours at temperatures below ~5°C.

1:45 p.m. Wiens R. C. \* Clegg S. Bender S. Lanza N. Barraclough B. Perez R. Maurice S. Dyar M. D. Newsom H. Chemcam Team

[Initial Calibration of the ChemCam LIBS Instrument for the Mars Science Laboratory \(MSL\) Rover](#) [#1461]

The ChemCam laser-induced breakdown spectroscopy (LIBS) flight instrument was calibrated at distances up to 7 m with 65 standards. We report in terms of quantitative elemental abundances, sample classification, and remote dust removal from samples.

2:00 p.m. SAM Team Mahaffy P. R. \* Cabane M. Conrad P. G. Webster C. R.  
[Sample Analysis at Mars \(SAM\) Instrument Suite for the 2011 Mars Science Laboratory](#) [#1088]

The measurement capabilities of the Sample Analysis at Mars (SAM) Instrument Suite for the 2011 Mars Science Laboratory (MSL) are described. MSL explores present and past habitability of Mars and the SAM focus is volatiles, isotopes, and organics.

2:15 p.m. Litvak M. L. \* Mitrofanov I. G. Shvencov V. N. Timoshenko G. N. Kozyrev A. S. Malakhov A. V. Mokrousov M. I. Sanin A. B. Tretyakov V. Vostrukhin A. Golovin D. V. Varenikov A.

[DAN/MSL Instrument: Road from Field Tests to the Estimation of Hydrated Minerals in the Martian Subsurface](#) [#1250]

Results of DAN/MSL field tests and predictions for operations onboard MSL rover are presented.

2:30 p.m. Gómez-Elvira J. \* Castañer L. Lepinette A. Moreno J. Polko J. Sebastian E. Torres J. Zorzano MP. REMS Team  
[REMS, an Instrument for Mars Science Laboratory Rover](#) [#1540]

REMS (Rover Environmental Monitoring Station) is part of the MSL instrument suite. All qualification and protoflight tests have been accomplished, as well most of the calibration ones. A description of the flight model status and calibration tests is presented.

2:45 p.m. Hassler D. M. \* Andrews J. Bullock M. Grinspoon D. Neal K. Posner A. Rafkin S. Tyler Y. Vincent M. Weigle E. Zeitlin C. Beaujean R. Boehm E. Boettcher S. Burmeister S. Kortmann O. Martin C. Muller-Mellin R. Wimmer-Schweingruber R. F. Reitz G. Brinza D. Cucinotta F. Cleghorn T.

[The Radiation Assessment Detector \(RAD\) on the Mars Science Laboratory \(MSL\) \[#2297\]](#)

The Radiation Assessment Detector (RAD) will detect and analyze the most hazardous energetic particle radiation on the surface of Mars as a key element of the Mars Science Laboratory (MSL) mission.

3:00 p.m. Blake D. F. \* Vaniman D. Anderson R. Bish D. Chipera S. Chemtob S. Crisp J. DesMarais D. J. Downs R. Farmer J. Gailhanou M. Ming D. Morris D. Stolper E. Sarrazin P. Treiman A. Yen A.

[The CheMin Mineralogical Instrument on the Mars Science Laboratory Mission \[#1484\]](#)

The CheMin mineralogical instrument aboard MSL will for the first time return definitive and quantitative mineralogical data from the Mars surface. During MSL's two-year mission, CheMin will provide XRD data from as many as 72 separate rock or soil samples.